

#### REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, the claims have been amended for clarity.

Applicants believe that the above changes answer the Examiner's objection to claim 2, and respectfully request withdrawal thereof.

The Examiner has rejected claims 1-4, 6, 8-10, 12, 13 and 15-17 under 35 U.S.C. 102(b) as being anticipated by the article "Reconstruction of the 3-D Shape Of An Object From A 2-D Intensity Image", by Y. Numagami et al., Canadian Conference on Electrical and Comput4e4r Engineering, 1995, Volume: 2, 5-8 Sept. 1995, pages 1188-1191. The Examiner has further rejected claims 4, 5 and 7 under 35 U.S.C. 103(a) as being unpatentable over Numagami et al. in view of U.S. Patent Application Publication No. 2004/0062439 to Cahill et al. In addition, the Examiner has rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Numagami et al. Furthermore, the Examiner has rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Numagami et al. in view of U.S. Patent Application Publication No. 2002/0154116 to Nakatsuka et al.

The Numagami et al. article describes a method of generating heights of pixels by, for example, (see paragraph IV. therein): determining a slope value,  $r$ , along a path, and assigning a height (i.e., a depth)  $z$  of a pixel on the basis of the slope value and the height (i.e., depth)  $z_0$  of a fiducial pixel.

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants submit that Numagami et al. neither discloses nor suggests the use of transitions between image segments in the input image in the computation of a cost value. Moreover, the present claims describe the assignment of a depth value to a pixel from a first group of pixels, so that pixels belonging to the same image segment are assigned the same group of depth values. In particular, Numagami et al. fails to disclose the feature of determining transitions between image segments and of assigning depth values to a pixel on the basis of which image segment the pixel belongs to, as set forth in claims 1 and 15-17. The effect of the features of determining transitions between image segments and of assigning depth values to a pixel on the basis of which image segment the pixel belongs to, is that pixels in the same image segment corresponding to the same object of the input image (see page 2, lines 11-13 and page 2, lines 19-21) are assigned a pixel value in the same group of pixel values. These pixel values are

indicative of the spatial disposition of objects in the scene of the image. Therefore, they are useful for providing 3D effect.

The Cahill et al. publication discloses a method and system for generating a foreground mask for a composite image, which, as noted by the Examiner, "teaches a method of providing depth information from a 2D image, comprising calculating a depth map, see par. [0002], in which values are filtered for noise by using a threshold, see par. [0022]."

However, Applicants submit that Cahill et al. does not supply that which is missing from Numagami et al., i.e., the feature of determining transitions between image segments and of assigning depth values to a pixel on the basis of which image segment the pixel belongs to.

The Nakatsuka et al. publication discloses a data processing apparatus and shading apparatus, which, according to the Examiner, "teaches a method of interpolating depth values on a pixel-by-pixel basis (see par. [0119] and [0165]), in which the pixels are evaluated in a zigzag path, so that pixels may be positioned in a two-dimensional neighborhood (see par. [0179])."

However, Applicants submit that Nakatsuka et al. does not supply that which is missing from Numagami et al., i.e., the feature of determining transitions between image segments and of assigning depth values to a pixel on the basis of which image segment the pixel belongs to.

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious

by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-17, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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